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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---------------------------------|-------------|----------------------|---------------------|------------------|
| 10/765,305 | 01/26/2004 | Karl E. Moerder | TACHYON.044C1 | 9207 |
| 20995 | 7590 | 08/23/2005 | EXAMINER | |
| KNOBBE MARTENS OLSON & BEAR LLP | | | NGUYEN, SIMON | |
| 2040 MAIN STREET | | | ART UNIT | |
| FOURTEENTH FLOOR | | | PAPER NUMBER | |
| IRVINE, CA 92614 | | | 2685 | |

DATE MAILED: 08/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/765,305

Applicant(s)

MOERDER, KARL E.

Examiner

SIMON D. NGUYEN

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 January 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 1-13 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-11 of U.S. Patent No. 6,684,059. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims in the application are broader than the claims in the invention. In particular, the independent claims in the application do not use a free running oscillator for frequency downconversion .

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-4, 6-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawabata (5,793,819) in view of Dutta (46,301,232).

Regarding claim 1, Kawabata discloses a radio terminal (fig.1), comprising: receiving a modulated signal at input terminal 1; deriving a modulation frequency from the modulated signal by reproduction clock signal and reproduction carrier wave at demodulator 4; locking an oscillator output frequency by synthesizer 3 to generate the transmit upconversion frequency at output terminal 13 (column 4 lines 15-65, column 5 lines 1-67). However, Kawabata does not specifically disclose deriving a frequency included a rate.

Dutta discloses a satellite communication device, comprising the step of deriving a frequency data rate from a modulated signal (figs.3, 5, column 9 lines 5-28, column 20 lines 3-15, 45-61). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to have Kawabata, modified by Dutta in order to adjust a transmission signal according to its reception rate.

Regarding claim 9, this claim is rejected for the same reason as set forth in claim 1, wherein the symbol frequency is extracted (column 8 lines 51-56).

Regarding claim 11, this claim is rejected for the same reason as set forth in claim 9.

Regarding claim 2-3, 10, 12-13, in the modified Kawabata, Dutta further discloses the modulated signal is modulated at a defined symbol frequency deriving at the receiver comprises bits encoded as defined phase, frequency states of signal (figs.3, 5,

column 9 lines 5-28, column 20 lines 3-15, 45-61). It should be noted that a bit encoding defined as an amplitude is obvious to one skilled in the art in order to accurately detect the received signal symbol.

Regarding claim 4, Kawabata discloses the step of downconverting the modulated carrier to produce an intermediate frequency signal and demodulating the IF to a baseband signal (fig.1, column 5 lines 3-5).

Regarding claim 6, Kawabata discloses a PLL (fig.1).

Regarding claim 7, Dutta further discloses the modulated signal received from a satellite (fig.1).

Regarding claim 8, this claim is rejected for the same reason as set forth in claims 1 and 4.

5. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kawabata (5,793,819) in view of Dutta (6,301,232) and further in view of Na (6,226,276).

Regarding claim 5, the modified Kawabata fails to disclose a free running oscillator.

Na discloses a transceiver for a digital communication device (figs. 1, 3), comprising: receiving a modulated carrier ($f(Rx)$); deriving (extracting) a signal frequency for the rate which data is being received over the modulated carrier (figs.1,3, column 10 lines 24-27, 39-43); locking an oscillator output frequency to the signal frequency and using a free running oscillator to generate the transmit upconversion(column 10 lines 40-44, column 11 lines 9-64). Therefore, it would have been obvious to one skilled in

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the art at the time the invention was made to have modified Kawabata, modified by Na in order to prevent a long-term drift caused by using a PLL for a long time.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Toda et al. (5,388,125) discloses a communication transceiver comprising: deriving a modulated signal by extractor 31, locking the extracted signal by VCO 3, and use an oscillator output frequency to generate the upconversion frequency (fig.1, 10); Waters et al. (4,932,070) discloses a satellite communication device, comprising the step of deriving a frequency data rate from a modulated signal and using the rate for up-converting signal (column 4 lines 20-38); Takahara et al (5,493,710) disclose a communication transceiver comprising a frequency estimator (frequency extractor) coupled to an output of an IF signal to extracting a modulated signal, wherein the frequency estimator used to lock oscillator output signal for up-conversion (figs.19-21).

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Simon Nguyen whose telephone number is (571) 272-7894. The examiner can normally be reached on Monday-Friday from 7:00 AM to 4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward F. Urban, can be reached on (571) 272-7899.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 306-0377.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

600 Dulany, Alexandria, VA 22314

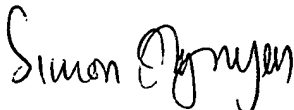
Or faxed to:

(571) 273-8300 (for formal communications intended for entry)

Hand-delivered response should be brought to Customer Service Window located at the Randolph Building, 401 Dulany, Alexandria, VA, 22314.

Simon Nguyen

August 17, 2005



**SIMON NGUYEN
PRIMARY EXAMINER**